Remarks

The Examiner's Office action mailed April 20, 2004, which rejected or objected to pending claims 1-18 and allowed claims 19-24, has been reviewed, and certain amendments have been made to the application. In view of the amendments and the following remarks, Applicants respectfully submit that the application is in condition for allowance.

The Examiner found that claims 1-16 and 18 are rejected. The Examiner found that claim 17 is objected to as being dependent upon a rejected base claim but would allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

The Examiner rejected claims 1-16 and 18 under 35 U.S.C. § 103(a) as being unpatentable over by U.S. Patent No. 6,353,819, issued to Edwards et al. ("Edwards").

The Examiner stated that in the prior Response Applicants made three arguments for patentability. That is not correct. Applicants made several arguments. For clarity, Applicants will number each argument and requests a Response by the Examiner to the same. Further Applicants request clarification from the Examiner on statements made in the Final Office action, as indicated below. Applicants request that the Examiner separately respond to each numbered paragraph below so that Applicants may consider the Examiner's reasons on the record.

1. Regarding claims 1 and 2, Edwards does not teach or suggest a transparent layer between the first architecture layer and the second architecture layer. The Examiner cited the RAM Codegen Executor component layer 204 as the first layer and the record file manager component layer 206 as the second layer. The Examiner cited the IO random controller component layer 208 as the transparent layer.

The first and second layers cited by the Examiner (reference numbers 204 and 206) are next to each other. The third layer cited by the Examiner (reference number 208), which the Examiner incorrectly designates as a transparent layer, is next to the layer 206 on the opposite side of layer 204, not in between layer 204 and layer 206. Even if layer 208 was a transparent layer, which it is not, it still would not meet the claimed limitation since it is clearly not between layer 204 and layer 206.

The Examiner never explained how the IO random controller layer 208 can be the claimed transparent layer when it is not **between** the other two layers. Applicants explicitly request an explanation of how the layer 208 can be the claimed transparent layer and how the

Examiner can argue that the claimed limitation is met for "a transparent layer between the first architecture layer and the second architecture layer" as required by claim 1. See Figure 2 of Edwards.

2. In response to Applicants' statement on this issue, the Examiner stated "Edwards teaches the code is passed from the second layer to the third layer for translating code-generated requests into I/O file read/writer request perform this I/O read/write request (col 2, ln 15-20)/ the RFM layer receives the reads and writer request from layer 204 and translates them into IO file read and write requests. The IO Random controller layer 208 receives the request from layer 204 (col 5, ln 16-21)." See Final Office action, page 7, lines 1-2 and 9-13.

The Examiner misquoted Edwards. At column 5, lines 11-21, Edwards states "[t]he RFM component layer 206 performs the relational processing for RDMS 200 and contains all of the knowledge of the physical layout of the data on the file pages or Control Intervals (CIs). It receives the read and write requests from layer 204 and then translates them into IO file read and write requests respectively. It processes the file pages read by layer 208 to which it operatively couples. Thus, this layer hides the physical storage of data and all other file format details from layer 204. The IO Random Controller component layer 208 receives the requests from layer 206 and performs the relational file processing of translating the code-generated requests into I/O read/write requests."

Thus, the component layer 206 performs the relational processing. The component layer 206 receives the read and write requests. The component layer 206 processes the file pages. The component layer 206 hides the physical storage. The RC component layer 208 receives requests from layer 206. The component layer 206 is the middle layer, and it performs the processing. The Examiner never explained how this component layer 206 can be considered a transparent layer.

The Examiner further misquoted Edwards. The Examiner stated that in col. 5, lines 20-21 Edwards teaches the IO Random Controller component layer 208 receives the requests from layer 204. This is a huge error. That is not at all what Edwards states. Edwards states "The IO Random Controller component layer 208 receives the requests from layer **206**."

The Examiner erred in the reading and the application of Edwards. Applicants request withdrawal of the rejections and allowance of the claims.

3. The Examiner stated that Applicants claimed nothing in Edwards teaches or suggests relaying a communication between the first layer object and the second layer object and bypassing the transparent layer object. The Examiner then stated "the RFM component layer perform the required record processing." See Final Office action, page 7, lines 3-4 and 14-16.

The Examiner's statement is inaccurate. Applicants claim three layers, the middle layer being a transparent layer. Applicants claim that communication can be made between the first layer and the third layer and bypass the transparent layer.

The RFM component layer 206 of Edwards is the MIDDLE LAYER and it performs processing. It is not a transparent layer. As shown above, Edwards at column 5, lines 11-21, teaches that the RFM component layer 206 receives communications from the layer 208 and the layer 204 and performs processing. To meet the claim limitations, the RFM component layer 206 would have to be a transparent layer.

Further, Edwards does not teach or suggest a transparent layer at all. The IO random controller component layer 208 is not a transparent layer required by Applicants claims. Applicants' claimed limitation requires a transparent layer enabling the first architecture layer and the second architecture layer to communicate directly without having to communicate via the transparent layer.

4. Further, Applicants do not claim "record processing." Applicants do not understand why the Examiner keeps stating that the RFM component layer performs the required record processing when that statement in no way relates to the claims. Applicants request an explanation of this.

5. The Examiner did not address Applicants remarks with respect to the row retrieval process. The Examiner alleged that the row retrieval process meets some claim limitations, although the Examiner did not make clear how the row retrieval process in any way meets any of the claim limitations.

The claim limitations deal with communications between architecture layers, not retrieving row data in tables. Applicants claim limitations say nothing of retrieving row data from a table. The Examiner did not explain how retrieving row data is relevant to Applicants' claims or how retrieving the row data applies to communications between layers and around a transparent layer. The Examiner did not acknowledge that the row data and code are in a cache

and that this cache is not a "layer" as claimed in Applicants claims. The Examiner did not explain how this cache and row data meet the claim limitations.

6. The Examiner pointed to col. 2, lines 3-22, finding that Edwards teaches four layers in which a first layer functions as an SQL director, a second layer consists of an optimizer for optimizing code and generating code, and a third layer for relational file management and translating code generated requests into IP file read/write requests, and a fourth layer that functions as an IO controller and performs the requested I/O operation designated by a file request that results in reading and writing the relational database files in page increments. Edwards stated that this layer system was prior art, that it was inferior, and that it slowed access. Thus, Edwards created a new system. See column 2, lines 30-41. Therefore, it is not appropriate for the Examiner to combine teachings in the Background section with teachings in the Detailed Description section when Edwards stated the teachings in the background do not work and certainly would not work when combined with the teachings in the Detailed Description. Teachings cannot be combined when the combined teaching will not work for its intended purpose. The proposed modification cannot render the prior art unsatisfactory for its intended purpose. MPEP 2143.01; *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

7. The Examiner cited Edwards at 5, lines 11-19. The Examiner stated that while the citation at column 5, lines 11-19 does not explicitly teach the claimed limitation, it would be obvious to one of ordinary skill in the art "to apply the teaching of Edwards because Edward's transparent [sic] would provide more efficiency for improving relational data access performance in retrieving row data." Applicants do not claim retrieving row data. The Examiner has not stated how retrieving row data and how a cache relates to applicants claims, and Applicants explicitly request an explanation.

8. This citation merely uses the word "hides." The citation merely states that it hides the storage of data and details from layer 204. The citation describes that the component layer 206 performs processing, layer 206 receives requests from layer 204, and layer 206 processes pages read by layer 208 to which layer 206 couples. It does not state that a transparent layer enables the first architecture layer and the second architecture layer to communicate directly without having to communicate via the transparent layer. If anything, this citation bolsters Applicants argument because the middle layer is performing the processing, and communications are not be transferred from the first layer to the third layer directly without

having to communicate via the transparent layer, where the transparent layer is the middle layer. It is noteworthy that the Examiner previously alleged that the component layer 208 was the transparent layer. Applicants are not clear whether the Examiner is alleging that the layer 206 or the layer 208 is the transparent layer and requests an explanation of the same.

9. To establish a *prima facie* case of obviousness, the Examiner must show "some objective teaching" in the prior art that would lead one of ordinary skill in the art would lead to modify the relevant teachings of the reference. See MPEP 2141 and 2143; *In re Fine*, 837 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Examiner's reliance on "common knowledge and common sense" does not fulfill the agency's obligation to cite references to support its conclusions. *In re Lee*, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). Instead, the Examiner must document the reasoning on the record. *In re Lee*, 61 USPQ2d at 1435.

The Federal Circuit has stated that the Examiner may not base a rejection on conclusory statements or meaningless reasons to modify or combine references to obtain the claimed invention. Under an obviousness rejection, there must be a search and analysis of the prior art, including evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and modify or combine the references relied on as evidence of obviousness. *In re Lee*, 61 USPQ2d at 1433. Conclusory statements from the Examiner do not adequately address the issue of motivation. This factual inquiry of motivation is material to patentability, and can not be resolved on subjective belief and unknown authority. *In re Lee*, 61 USPQ2d at 1434.

The Examiner must provide particular findings related to the showing of the motivation to combine. *In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). Broad, conclusory statements standing alone are not "evidence." *In re Kotzab*, 55 USPQ2d at 1317.

The Examiner did not comply with any of these requirements. Here, the Examiner made statements that one skilled in the art would modify a reference without providing citations to references and objective reasoned findings why the modification would be made to arrive at the claimed invention.

10. The Examiner did not provide a suggestion to modify the teachings of Edwards to reach the claimed invention. Further, the Examiner ignores the requirements in the MPEP and the Federal Circuit to provide a suggestion to modify. Applicants request the Examiner to identify an objective suggestion to modify the system of Edwards to meet the claimed limitations

and requests the suggestion be one that is actually acceptable under the MPEP and the Federal Circuit case law. See MPEP 2141 and 2143.

First, the Examiner did not provide a suggestion to modify Edwards and compare it to the claimed limitations. The Examiner stated that is would be obvious "to apply the teaching of Edwards because Edwards transparent would provide more efficiency." The statement does not make sense. **What teaching of Edwards is used, what teaching of Edwards is modified, how is that teaching modified, what is the suggestion to modify that teaching with the modifications, what is the result of that teaching, and how does that modified teaching render the claims obvious?** The Examiner must provide answers to all of these issues on the record.

Second, "increasing efficiency" is not a legitimate objective suggestion to modify Edwards to meet the claimed limitations in an obviousness analysis. Just about everything is done to increase efficiency. If the Examiner's "reason" was legitimate, nothing would be patentable because everything would be susceptible of modification to increase efficiency.

The Examiner did not provide reasoned findings and only proposed the statement without any proof in violation of the MPEP and *In re Lee*, *In re Fine*, and *In re Kotzab*.

11. The Examiner cannot claim that making any layer a transparent layer is in any way obvious over Edwards. There is no motivation or suggestion in Edwards to modify what is actually taught in Edwards to meet the claim limitations of applicants' claims. The Examiner must provide a motivation or suggestion to modify the teachings of Edwards to result in the claimed invention. There is no such motivation or suggestion to make the modification.

Applicants request that the Examiner follow the MPEP and the current Federal Circuit case law. If the Examiner will not follow the Federal Circuit case law and the MPEP, Applicants request the Examiner to explain the reasons.

12. Applicants request that the Examiner interpret the claims in accordance with the specification. While the Examiner may give the claim term its broadest reasonable meaning, the claim terms are interpreted in accordance with the specification. ("When examining claims for patentability, claims are interpreted as broadly as is reasonable and consistent with the specification." MPEP 2111; *In re Thrift*, 63 USPQ2d at 2206.) Further, where a component in the cited reference (regardless of its name) is not the same and does not have the same function as the claimed limitation, and Applicants have shown why the cited component and the claimed

limitation are not the same, the Examiner must provide a reasoned analysis why the Examiner construes them to be the same. *In re Lee*, 61 USPQ2d at 1434. Applicants are not requesting, and specifically do not want, limitations from the specification to be read into the claims. Reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification to narrow the claim. MPEP 2111.

13. The Examiner cited other portions of Edwards that do not fulfill the deficiencies cited above. The Examiner cited column 2, lines 55-60, column 3, lines 13-17, and column 5, lines 54-67 for the proposition that Edwards teaches a first layer and a second layer that communicate directly without having to communicate via the transparent layer. These citations are equally meaningless since there is no transparent layer referenced in these citations. The Examiner merely is referencing three layers in which the first communicates with the second and the second communicates with the third. None of the layers are transparent to any other layer. The communications pass up the layers or are made from each layer to a cache that is accessible by that layer. A performance enhancing subroutine exists in a library and writes to a cache. The code generating layer generates code and executes the subroutine. This does not meet Applicants claimed limitations, and these citations in Edwards cannot be modified to meet the claimed limitations as the Examiner alleged. The Examiner did not explain how these citations meet the claimed limitations, and Applicants expressly request that explanation.

14. Further regarding claim 2, Edwards does not teach or suggest "objects" at all. Edwards discusses layers. No mention is made of objects. Further, Edwards does not teach or suggest that a transparent layer object is configured to be hidden for a communication between the first layer object and the second layer object. Nothing in Edwards suggests hiding a layer object when a communication is made between layers. Further, Edwards does not teach or suggest relaying the communication between the first layer object and the second layer object by bypassing the transparent layer object.

15. Claim 14 is patentable for the same reasons explained above. Edwards does not teach or suggest a transparent layer as required by Applicants' claims. Further, the citation for the action province and the yoke province does not meet the claimed limitations. The Examiner cited functions of both the RAM codegen layer 204 and the RFM layer 206 for the action

province and then cited the RAM codegen layer 204 for the yoke province. The Examiner did not explain how the citations for the various layers can be used to meet the claimed limitations.

Further, the citations do not disclose, teach, or suggest a yoke province configured to dynamically identify a database with a database type to which the query corresponds and initiate a connection with the database to transmit the query to the database. Recall that the architecture of the present invention is configurable to connect to many different types of databases.

16. In both Office actions, the Examiner left out several words for the claim limitations of claim 14. Thus, the Examiner did not make a complete rejection of the claim on the record and did not find the claim limitations in the cited references.

Further, Edwards does not meet these limitations. Edwards does not identify a database type to which the query corresponds. Edwards only has one database. It only issues SQL queries. It does not need to identify a database type that corresponds to a query, and it does not do so. The Examiner cited column 5, lines 42-44 in an attempt to meet this claim limitation. At this cite, Edwards states the "optimizer component 204-2 processes the SQL query by determining the appropriate access plan strategy." It is a stretch to state that "determining the access plan strategy" is the same as "dynamically identify a database with a database type to which the query corresponds" as in Applicants claim 14.

Similarly, Edwards does not teach or suggest initiating a connection with the database. Again, Edwards teaches only one database. Nothing in Edwards initiates a connection with the database.

17. The Examiner stated "to notify the witness province of the action was not in the claim." Final Office action, page 8, lines 1-2. This is correct. Applicants did not allege that this was in the claims. Applicants alleged that the there is no teaching or suggestion in Edwards of the witness province configured to identify the action occurring via an input/output interface and to notify the action province and/or the witness province of the action. Applicants renew this argument.

Since none of the action province, the yoke province, or the witness province are taught in Edwards, Edwards cannot teach or suggest that any of those provinces comprise a transparent layer.

The Examiner has not made a prima facie case of obviousness. The Examiner has not provided an objective teaching or suggestion to modify the Edwards reference to meet the claim

limitations. The reasons provided by the Examiner are meaningless and would not lead an individual to create the claimed invention. The Examiner is precluded from rejecting a claim based on conclusory statements and a lack of objective evidence.

For the reasons stated above, claims 1, 2, and 14 are believed patentable. Withdrawal of the rejection of claims 1, 2, and 14 respectfully is requested.

The claims depending from claims 2 and 14 contain all of the limitations of the base claim and any intervening claims. For this reason, the claims depending from claims 2 and 14 are believed patentable. Withdrawal of these claims respectfully is requested.

Applicants thank the Examiner for the allowance of claims 19-24.

The references cited by the Examiner and made of record have been reviewed by Applicants. Applicants have no further remarks with regard to the cited references.

Based on the foregoing, it is submitted that the Applicants' invention as defined by the claims is patentable over the references of record. Issuance of a Notice of Allowance is solicited.

Applicants' attorney welcomes the opportunity to discuss the case with the Examiner in the event that there are any questions or comments regarding the response or the application.

This is intended to be a complete response to the Examiner's Office action mailed on April 20, 2005.

Respectfully Submitted,

LATHROP & GAGE L.C.

By _____

James M. Stipek, Reg. No 39,388
Lathrop & Gage, L.C.
2345 Grand Boulevard, Suite 2300
Kansas City, MO 64108
Tel: (816) 460-5848
Fax: (816) 292-2001
Attorney for Applicant(s)